**LRO BLOCK I STUDY GUIDE**

I. Organization, Roles, and Responsibilities of Logistics Readiness Officers

# A. Logistics is the key element in warfare; success on the battlefield is dictated by how well a commander manages available logistical support—this was illustrated by Operations Desert Shield/Storm

B. Joint Logistics is defined as the process of planning and execution of the movement and support of forces

C. Joint Logistics Capabilities:

1. **Supply**: manages supplies and equipment, inventory, and maintains supplier networks

2. **Logistics Services**: food service, water and ice, base camp services, hygiene services, bed down of forces

3. **Operational Contract Support**: contract support integration, contractor management

4. **Maintenance Operations**: depot maintenance operations, field maintenance operations, manage life cycle systems readiness

5. **Deployment and Distribution**: move the force, sustain the force, operation the Joint Deployment and Distribution Enterprise

6. **Engineering**: combat engineering, general engineering, geospacial engineering

7. **Health Services Support**: casualty management, patient movement, medical logistics, preventive medicine and health surveillance, theater medical information

\***S**ome **L**ogistics **O**fficers **M**ake **D**istribution **E**ven **H**arder\*

D. Principles of Logistics

1. **Flexibility**: adapt logistics structures to changing situations and concepts of operations

2. **Economy**: using the fewest resources at the lowest cost within acceptable risks

3. **Attainability**: ability to provide the minimum essential supplies and services to begin combat operations

4. **Responsiveness**: the right quantity in the right place at the right time

5. **Simplicity**: reducing complexity fosters efficiency in both the planning and execution of logistics operations

6. **Sustainability**: the ability to maintain support to all users for the duration of the operation

7. **Survivability**: capacity to prevail in the face of potential destruction

\***F**lexibility **E**conomy **A**ttainability **R**esponsiveness **S**implicity **S**ustainability **S**urvivability\*

E. Agile Combat Support (ACS): central support concept that ensures both the viability of expeditionary airpower and the ability to support force requirements

1. Improves responsiveness, deployability, and sustainability of forces

2. Substitutes responsiveness for the massive inventories of the past

3. Defining attributes of ACS:

a. **Agility**—ensuring timely deployment concentration, adaptive employment and resourceful sustainment of air and space power

b. **Reliability**—results from the effectiveness of the Expeditionary Combat Support team, competency and health of personnel, dependability of equipment, trustworthiness of information, and consistency of ACS effects

c. **Integration**—brings together diverse parts into a common team and creates a synergistic effect

d. **Responsiveness**—results when ACS capabilities are the right size, when and where they are needed

4. Time Definite Resupply: a fundamental shift in the way deployed forces are supported

a. resupply of deployed forces begins upon their arrival

b. mobility footprint of deploying forces is reduced because they are not required to bring those supplies with them when they deploy

i. reduces initial lift requirements

ii. reduces costs

iii. reduces size and therefore vulnerability of forces

5. Reachback: knowing what is needed, in what quantity is key

a. **push resupply**—resupply happens automatically without requesting the materiel (*the materiel is “pushed” to the user*)

i. works best for commodities and classes of materiel with constant usage rates

ii. example would be food rations

b. **pull resupply**—resupply happens only at the request of the user when the materiel is needed (*the materiel is “pulled” by the user*)

i. works best for commodities that don’t need to be replaced often or are expensive to stock

ii. example would be replacement aircraft parts

6. Streamlined Depot Processes:

a. Will release materiel in a more timely fashion than in the past

b. Rapid, time definite transportation will deliver materiel directly to the user in the field

c. Integrated information systems will provide asset visibility of the materiel directly to the user

F. Focused Logistics:

1. Fusion of logistics information and transportation technologies for rapid crisis response

2. Deployment and sustainment

3. The ability to track and shift units, equipment and supplies even while en route to include the delivery of tailored logistics packages and sustainment directly to the war fighter

a. Concentrates on innovative and efficient processes and products

b. Requires logisticians to examine the big picture

G. Agile Logistics: initiated through “lean logistics”—aimed to reduce the size and cost of prioritized repair and faster transportation

1. Reduces the cost and size of supply inventories

2. Reduces logistics pipelines by speeding up the repair and transportation segments

3. Simultaneously increases logistics efficiencies

a. Tenets of Agile Logistics

i. **Reduce repair cycle time**—the that an item arrives at the repair facility until it leaves after it is repaired

ii. **Reduce inventories**—once the repair cycle time is shortened, there will not be a need to maintain large inventories

iii. **Repair on demand**—if aircraft availability goals are accurately predictable, the depot will be able to predict what the demand will be and provide required repair parts based on an accurate forecast

iv. **Establish a consolidated repairable inventory/consolidated serviceable inventory** (CRI/CSI)—centrally held serviceable and unserviceable assets are held at locations closer to the actual user rather than the central facility, thus reducing the need for transportation to a far off facility (example: a mini-depot in the Pacific to service PacAF bases)

v. **Shipment on demand**—the contractor ships the part directly to the user rather than to the depot on the instructions of the depot (reduces the need for a part to be sent to the depot just to be then sent to the user)

vi. **Direct shipment**—parts are sent from the user directly to the contractor and then sent back directly to the user (the depot never handles the part; *distinguished from shipment on demand because the depot is never involved in the process whereas in shipment on demand, it is the depot that requests that the part be shipped directly to the user*)

vii. **Fast transportation**—use of expedited air transportation as needed

H. LRO Core Competencies and Supporting AFSCs

1. Requirements for skill level upgrade to 21R3:

a. **24 months** service as an LRO after completion of LRO basic course

b. **12 continuous months** in one of the 3 core competencies

2. Core Competencies

a. **Distribution Management**

i. Provides for, monitors, and coordinates all on and off base transportation

ii. Arranges movement of personnel, supplies and equipment from one place to another using air, land, and sea

-Examples: personal property transfer, passenger travel, surface cargo, aerial port, and vehicle management

b. **Materiel Management**

i. Provides supplies, equipment, and fuel

-Examples: stock control, storage, equipment management, repair cycle management, and fuels

c. **Contingency Operations**

i. Coordinates efforts in planning and execution of force movement and maintenance

-Examples: logistics command and control, logistics planning, deployment operations, and War Reserve Material (WRM) management

3. Special Experience Identifiers (SEI)

a. Two available for LROs:

i. Fuels—KY

ii. Aerial Port—KT

b. Requirements

i. 24 months service in either fuels section or aerial port section

ii. SEI annotated on AF Form 2096

4. Supporting Enlisted Air Force Specialty Codes (AFSCs)

a. **Logistics Plans (2G0X1):**

i. Manage and operate **logistics** plans systems

\*key word is plans—notice “G” in code and “g” in logistics\*

b. **Traffic Management Office (2T0X1)**

i. Perform and manage **traffic** management activities

ii. Package, classify, and arrange personal property and cargo for shipment or storage

\*key word is traffic—notice the acronym TMO and the 0 in the code\*

c. **Vehicle Operations (2T1X1)**

i. Perform the **ground** transportation for passengers and cargo using ground vehicles

\*key word is ground\*

d. **Air Transportation (2T2X1)**

i. Perform and manage **air transportation** activities

ii. Handle all aspects of processing, scheduling, managing, and loading passengers and cargo for airlift

\*key word is air\*

e. **Vehicle Management (2T3XX**) manage the vehicle fleet, including management of vehicle maintenance, fleet management analysis, quality assurance, training, and material control—**they manage the motor pool**

i. Divided into two subgroups:

1. **Vehicle Management and Analysis (2T3X7)**—manage vehicle data collection system, file historical data, and maintain records—**they work in the motor pool office**

2. **Vehicle Equipment Maintenance (2T3X1)**—perform vehicle maintenance—**they are the mechanics**

I. Supply Chain Management (SCM) Concept: **Supply Chain** is a system of organizations, people, information, activities, and other resources that coordinate the movement of a product or a service from supplier to customer either physically or virtually (by computer)—**Supply Chain Management** is a process of planning, implementing, and controlling the operations of the supply chain as efficiently as possible--\**you should know the difference between Supply Chain and Supply Chain Management*\*

1. Air Force system of SCM

a. Air Force Global Logistics Support Center (GLSC) controls the supply chain (*for all reparable items, e.g. spare aircraft parts, etc*.)

b. GLSC is organized around three main supply chain functions:

i. Supply Chain Planning and Execution (SPDE)—provides oversight of supply chain planning and sourcing processes—**has a two-fold mission:**

**a. Develop the plan for each reparable and consumable part needed to meet weapon system availability targets**

**b. Work with sources of supply and repair to eliminate gaps between the demand plan and the supply plan**

ii. Supply Chain Operations (SCO)—acts as the single point of contact for GLSC to the customer and is responsible for the order management processes—*runs the day to day operations of GLSC*

iii. Supply Chain Strategy and Integration (SCS&I)—manages supply chain metrics, analysis, policy and business rules for the GLSC—*evaluates the other two functions of the GLSC to improve processes*

c. **SCM’s primary objective is to fulfill customer demands through the most efficient use of resources including distribution capacity, inventory, and labor**

d. Supply Chain Operations Reference (SCOR): a process reference model created by the Supply Chain Council—provides standard terminology and metrics for all supply chain processes allowing clearer communication amount supply chain partners; *contains four concepts*

i. Standard descriptions of management processes

ii. A framework of relationships among the standard processes

iii. Standard metrics to measure process performance

iv. Management practices that produce best-in-class performance

e. SCOR process under the Expeditionary Combat Support System (ECSS)

i. **Plan**

ii. **Source**—includes contracting, receiving, and pay

iii. **Make/repair**—produce or repair the product

iv. **Deliver/return**—order management; customer service, warehouse and inventory, transportation managment

v. **Enable**—covers financial issues such as budgeting and business intelligence

2. Total Asset Visibility (TAV): provides SCM Managers (GLSC) with timely and accurate information on location, movement, status, and identity of units, personnel, equipment, and supplies

a. Information can be used to improve the SCM process

b. 3 categories of TAV:

i. **In-storage**: information on assets stored at retail, wholesale (distributors) and disposal facilities—*includes inventories held by maintenance facilities for parts being repaired*

ii. **In-process**: information on parts that are near to being shipped, but not yet readily available for use—*example: a supply warehouse has a part on hand, and physically in the warehouse, but the part has been ordered by a customer and assigned to that customer; it is physically on the shelf but it is not available to be issued to another customer*

iii. **In-transit**: parts that have been shipped and are on the way to the customer

J. How LROs support the Supply Chain: they provide commanders with visibility and analysis of how well the supply chain is working by employing statistics—definition of statistics: *branch of mathematics dealing with the collection, analysis, interpretation, and presentation of masses of numerical data*

1. Importance of analysis within the organization: 3 common traits of successful organizations

a. Wide spread use of modeling and optimization

b. Employed an enterprise approach

c. Senior executive advocates

2. Tools of analysis employed by LROs

a. Forecasting: process of estimation unknown situations

b. Descriptive statistics: used to describe the main features of a collection of data in quantitative terms

c. Graphical Statistics: used to visualize quantitative data

d. Averages: measure of the middle or expected value of the data

e. Probability: measure of how likely it is that something will occur

f. Time Series: a sequence of data points, typically measured by successive times spaced at time intervals

g. Decision Analysis: approach to decision making conditions

K. Logistics Chain of Command

1. Joint Chiefs Logistics Division (*Pentagon level*) is the **J-4**—it develops logistics plans, and coordinates and supervises supply, maintenance, repair, evacuation, transportation, construction, and related logistics activities

2. MAJCOM and Numbered AF (NAF) Director of Logistics is the **A-4**—is the primary advisor to the Commander of Air Force Forces (COMAFFOR) for logistics and sustainment support of assigned and attached forces

a. **A-4 Staff** is a broad, multi-disciplined organization, generally comprised of logistics plans, munitions, distribution, material management, movement, maintenance, host nation support, and combat logistics support—responsible for a wide array of logistics functions to include integration and operational level planning for the management of logistics capabilities for deploying units

3. Base level: LRS, APS, AMS

4. Support Agencies

a. **Defense Logistics Agency (DLA)**: manages and purchases common consumable items for all military and *some* civilian agencies

b. **General Services Administration (GSA)**: provides *wholesale* support to *all government agencies*.

c. **Air Force Materiel Command (AFMC)**: largest AF organization responsible for providing materiel management support to the AF—uses 5 subordinate centers to accomplish its mission

i. AF Research Laboratory

ii. AF Test Centers

iii. Product Centers

iv. **AF Global Logistics Support Center (AFGLSC)**: *GLSC supports a concept of operations that integrates supply chain processes into a single end-to-end enterprise*

v. **Air Logistics Centers (ALC)**: *The three ALCs have a work force of more than 40,000 people that buy, supply, maintain, and repair equipment/components needed to keep the AF combat ready.*

d. **US Transportation Command (USTRANSCOM)**: a unified command whose mission is to provide global air, land, and sea transportation for the DoD both in peacetime and wartime. *As the single manager of America’s global Defense Transportation System (DTS)*, *USTRANSCOM is tasked with the coordination of people and transportation assets to allow the US to project and sustain forces*.

L. Base Level Logistics Organizations: the Logistics Readiness Squadron (LRS) is the primary training environment for LROs

1. **LRS Commander:** has overall responsibility for the health, welfare, and morale of assigned personnel

a. LRS Commander is responsible for establishing an effective Quality Assurance (QA) function—the program must include local inspections and personnel/process evaluations to ensure their programs, processes, technician proficiency, equipment conditions, and other focus areas are in compliance with Air Force, MAJCOM, and local directives

2. **Operations Officer** (Ops O or DO) is the next senior officer and oversees day-to-day operations of the squadron

b. Ops O directly supervises the LRS Unit Deployment Manager (UDM) and Squadron Readiness

3. **Logistics Manager** (applicable to active duty LRSs) is the senior civilian logistician and rounds out the management staff

4. Management Sections:

a. Squadron Training: responsible for overall training management for all assigned AFSCs

b. Resource Management: responsible for all Funds Management functions

c. Functional Systems Management: supports core LRS systems—provides support for all LRS computer and IT systems

5. Flights/Duty Sections—there are normally four (4) in a typical LRS

a. **Materiel Management Flight**: responsible for stocking, issuing, managing, inventorying, and inspecting DoD supplies and equipment

b. **Fuels Management Flight**: ensures quality petroleum products, cryogenics fluids and missile propellants are acquired or produced and issued safely and efficiently—*Flight Chief will serve as Responsible Officer for capitalized Defense Working Capital Fund fuel*

c. **Vehicle Management Flight**: single authority and source for maintenance and management of an installations motor vehicle fleet

d. **Deployment and Distribution Flight**: responsible for the centralized command and control, planning, and execution of all wing deployment operations and the distribution of cargo, passengers, and personal property

6. **Accountable Officer (AO) Responsibilities**: one who is officially designated and imposed *by law, lawful order, or regulation* with the duty to maintain accurate records of property and/or documents

a. *In the Air National Guard the United States Property and Fiscal Officers (USPFO) are the primary accountable officers in accordance with Title 32 U.S.C. 708*

b. Accountable Officers place specific emphasis on:

i. **Timely and accurately recording property transactions and maintaining all appropriate records**

ii. **Performing inventories of accountable property under their purview at periods prescribed in applicable directives**

iii. **Identifying the proper urgency and validity of requests for material in accordance with DoD 4140.1R**

iv. Properly identifying, reporting, and determining correct disposition of unserviceable, reparable, or excess property

c. LRS Commander as Accountable Officer: LRS/CC acts as the Accountable Officer

i. **He/she is the AO for Nuclear Weapons Related Material (NWRM)**

ii. He/she ensures that supply discipline is enforced

iii. He/she employs Internal Surveillance and Management Analysis

iv. **He/she validates that the monthly Base Supply Management Report (M32/NGV808) is processed and submitted to AFLMA not later than two (2) working days after the end-of-month processing**